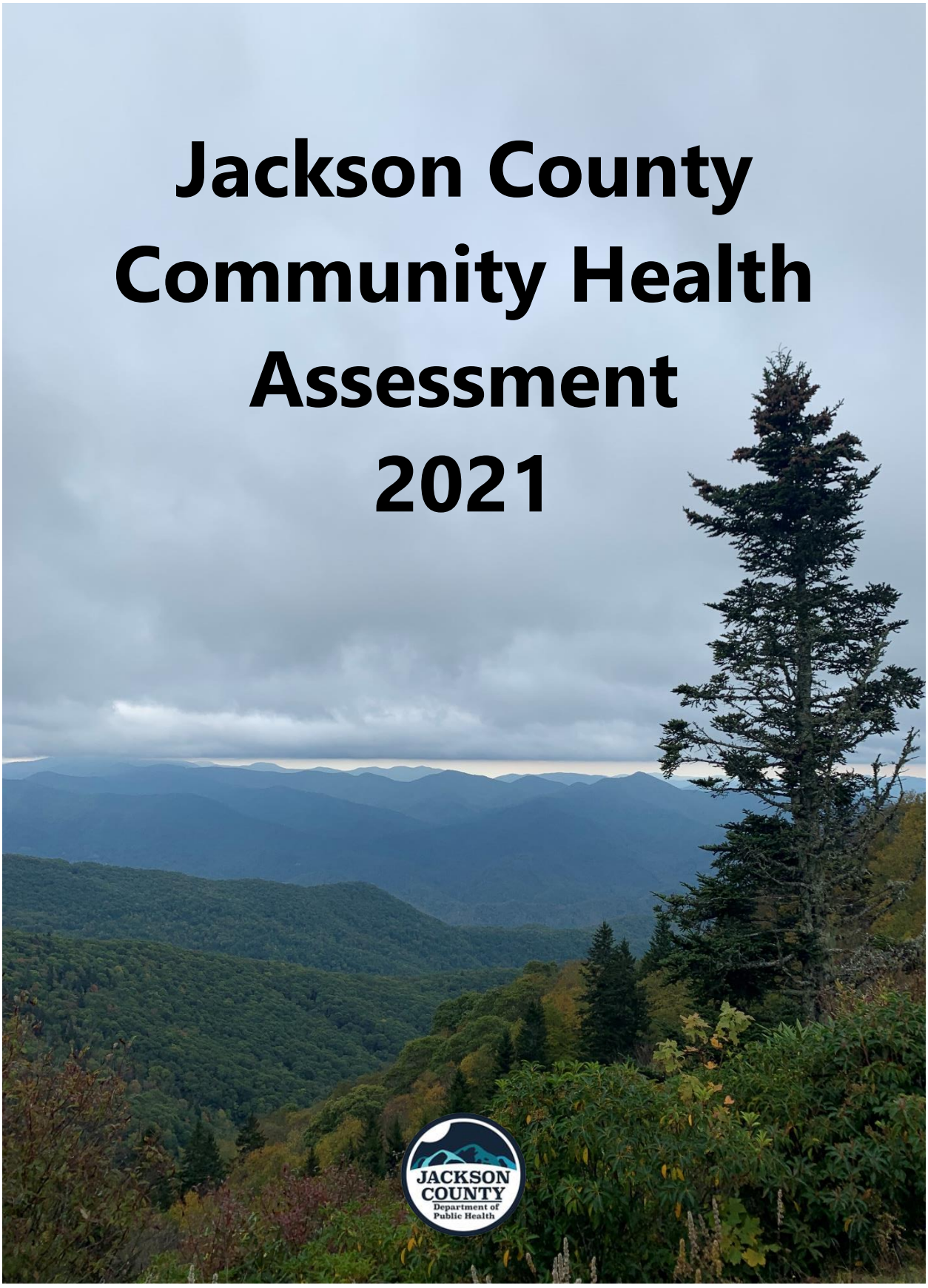
Jackson County Community Health Assessment 2021



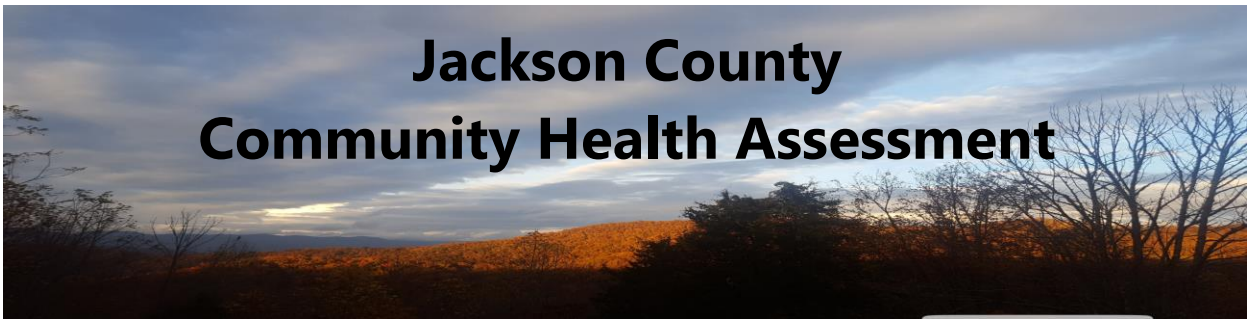


TABLE OF CONTENTS

Chapter 1 – Jackson County

Location, Geography, and History of Jackson County

Jackson County is located in the South Central Appalachian Mountains of Western North Carolina. Surrounded by the Blue Ridge Parkway and Great Smoky Mountains National Park, Jackson County consists of 494 square miles of mountains, rolling hills, and fertile valleys. Known for its varying geography, the elevation ranges in the county from 2,000 to 6,000 feet above sea level. The county also boasts a vast amount of U.S. National Forest Land, primarily the Nantahala National Forest. Notable geographic features of Jackson County include Richland Balsam, which is the Blue Ridge Parkway's tallest mountain peak at 6,410 feet, and Panthertown Valley, which has been described as the "Yosemite of the East." The Tuckasegee River flows 40 miles through the county and is a haven for trout fishing enthusiasts (Geography, 2021).

Jackson County is filled with natural beauty and the majority of the county is considered rural. There are endless opportunities for outdoor recreation such as hiking, and water sports like fishing, boating, and kayaking. Despite the many positives of the rural landscape of the county, there can be negative impacts, for example the geography creates food deserts and makes transportation challenging. A sense of isolation from state lawmakers and inaccessibility to resources is an issue in Western North Carolina (WNC), with Raleigh, the state capitol, being almost 300 miles from Jackson County.

Jackson County is a unique community, shaped by the rich history of its residents, and the four main towns and several residential areas. WNC has been home to Indigenous people for thousands of years. When explorers came to the area in 1540, the Cherokee people began facing intrusion, enslavement, violence, and a myriad of diseases that greatly impacted their lives. When President Andrew Jackson signed the Indian Removal Act in 1830, it began the displacement process and eventually lead to the deadly Trail of Tears, which drove out tens of thousands of Cherokee and Indigenous people from the southeastern United States and present-day Jackson County. People who are Cherokee and currently living in the area represent Cherokee people who escaped removal or relocated back to the area and officially became recognized as the Eastern Band of Cherokee Indians (EBCI) (History, 2022). There are about 16,500 EBCI members, most of whom live on the Reservation. Properly called the Qualla Boundary, the Reservation is slightly more than 56,000 acres held in trust by the federal government, specifically for the EBCI. The Qualla Boundary, the 100-square-mile sovereign nation of the EBCI, encompasses parts of five WNC counties: Cherokee (Andrews/Murphy), Graham (Robbinsville), Jackson (Sylva), Haywood (Waynesville/Maggie Valley), and Swain (Bryson City) (Lambert, 2022). The Qualla Boundary is rich with Cherokee history and heritage, natural beauty, and educational opportunities such as the Museum of the Cherokee Indian, Oconaluftee Indian Village, and Mountain Farm Museum.

Jackson County was founded in 1851 from parts of Haywood and Macon Counties, and was named for President Andrew Jackson (Martin, 2021). Webster, the original county seat, was incorporated in 1850. The Western North Carolina Railroad (now the Great Smoky Mountains Railroad) was constructed in the late 1800s by incarcerated individuals, whom the majority of

were "unjustly imprisoned" African American men (The RAIL Project, 2022). Constructing the railroad in Western North Carolina was especially challenging and dangerous due to the topography. According to State Penitentiary records, there were more than 139 convicts that died during the railroads inception, with construction accidents being the main cause (Waters, 2022). Railroad access greatly changed WNC by providing a connection to outside communities and the rest of the state and country. Bypassing Webster, the railroad was built through the town of Sylva, which ultimately increased Sylva's development and made it a prime location for the county seat. The issue of relocation resulted in years of bitter dispute between Sylva and Webster representatives. The state legislature settled the dispute, giving Sylva permission to construct a courthouse and to pay the moving costs to relocate (Martin, 2021). The courthouse is now home to the Jackson County Public Library and is touted as the most photographed courthouse in the state.

As the county seat, Sylva is the retail and professional center of Jackson County. Cullowhee is an unincorporated township that includes Western Carolina University and the surrounding businesses/residences designed to serve faculty and students. Dillsboro is a small village of shops and crafters, and was also a center of railway activity during the 1880s. The current Great Smoky Mountain Railroad attracts a significant amount of visitors to the Dillsboro area. The one-stoplight town of Cashiers sits at an elevation of 3,484 feet, and serves the southern end of the county (Home, 2021). Cashiers sees a boom in population and activity during the warmer months with the affluent seasonal residents and visitors.

Population Statistics

The population in Jackson County is 42,938 residents as of 2019 with 83.1% White, 8.0% American Indian/Alaska Native, 5.9% Hispanic/Latino, 2.2% African American, and .7% Asian. Jackson County has a significantly larger proportion of Indigenous people and significantly lower proportion of African Americans and other minority groups than the WNC region and the state (U.S. Census Bureau, 2021). The median age for county residents is 37.7 years, which is 9 years younger than the WNC average, and 1 year younger than the state average. There is a higher proportion of older adults when compared to NC, with 19% of the population age 65 or older (U.S. Census Bureau, 2021).

There are 16,773 households throughout Jackson County (U.S. Census Bureau, 2021). In households where children are 18 years or younger, 12% are headed by a married couple, 4.5% are headed by a single female, and 1.7% is headed by a single male. Grandparents raising grandchildren has become rather common, with 679 grandparents living with their grandchildren, and 35% being financially responsible for their grandchildren. Of the grandparents raising grandchildren in Jackson County, 84% are White and 10% are American Indian (U.S. Census Bureau, 2021).

COVID-19 Pandemic

COVID-19 is an infectious disease caused by a virus (SARS-CoV-2). It affects different people in different ways. Some people do not have any symptoms, while others can have symptoms that range from mild to extremely severe leading to hospitalization or death. Even people who do

not have symptoms initially can experience long-term complications. COVID-19 most often causes respiratory symptoms that feel like a cold or flu, but it can also harm other parts of the body (https://covid19.ncdhhs.gov/).

The local impact of the global COVID-19 pandemic on the health of our community is still changing every day as we respond together to this unprecedented viral spread. In addition to the toll of the virus on the direct health of the community, it has also shifted resources and impacted our community's capacity to respond to existing health priorities. For the latest information on how to keep our community safe from the virus, and the latest data regarding infection rates, hospitalizations, deaths, etc., please consult the North Carolina Department of Health and Human Services COVID-19 Dashboard: https://covid19.ncdhhs.gov/

Chapter 2 – Social & Economic Factors

As described by Healthy People 2030, social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. The five important domains of social determinants of health are economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social community and context (Office of Disease Prevention and Health Promotion, 2020).

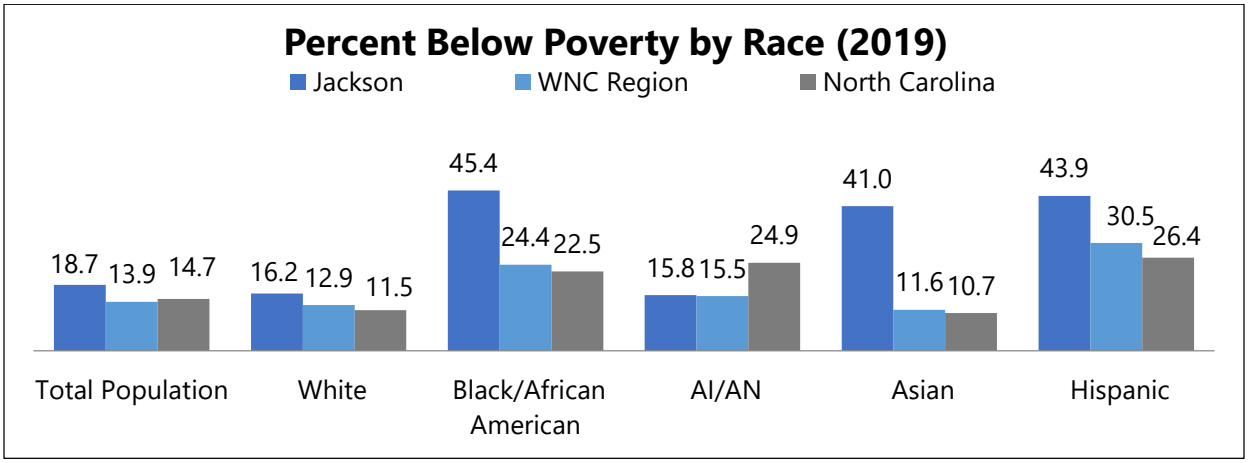
Income & Poverty

"Income provides economic resources that shape choices about housing, education, child care, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so does health" (County Health Rankings, 2021).

Jackson County's median household income for the 2015-2019 period is $47,252, which is $7,350 less than the state's median household income. The median family income is $62,387, also less than the state's (U.S. Census Bureau, 2021).

According to the US Department of Health and Human Services, 2020 Poverty guidelines for a family of 4 is $26,200. Of Jackson County's population, 18.7% are below the poverty level. Percentages for children are even higher, with 24.9% of children under 18 and 28.8% of children under 5 living below the poverty level. Additionally, almost 40% of Jackson County residents are below 200% of the poverty level.

The table below represents the percent below poverty by race in Jackson County, WNC Region and North Carolina. Jackson County has a higher percentage living in poverty in all categories – total population, White, Black/African American, Asian, and Hispanic, with the exception of the American Indian/Alaska Native (U.S. Census Bureau, 2021).



(U.S. Census Bureau, Poverty Status in the Past 12 Months: 2015-2019 ACS 5-Year Estimates, 2021)

As of January 2021, there were 2,294 households and 4,690 individuals participating in Food and Nutrition Services (SNAP/Food Stamps). Of those individuals, 456 were aged 65 and older (Food and Nutrition Services: Point in Time Data, 2021). During the 2019 – 2020 school year, Jackson County Public Schools nutrition services received 301 reduced lunch applications and 1,777 free applications. Within the public school system, 56.31% of students are deemed economically disadvantaged. This is a slight decrease, as the percentage is usually around 60% per school year (NC Department of Public Instruction, 2021).

Employment

"Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities" (County Health Rankings, 2021).

Jackson County's main employment sector is educational services (21.36% of the population with 2,883 workers, and an average weekly wage of $948), which is no surprise between Jackson County Public Schools and the county's two opportunities for higher education – Southwestern Community College and Western Carolina University. The next largest employment sector is health care and social assistance (15.17% of the population with 2,047 workers with an average weekly wage of $1,050). Jackson County is home to Harris Regional Hospital and their affiliate networks, and a myriad of other health care and social assistance agencies. The third largest employment sector is accommodation and food services (14.32% of the population with 1,933 workers and an average weekly wage of $433) (NC Department of Commerce, 2021).

Due to the COVID-19 pandemic, the unemployment rate changed drastically over the course of 2020. In January 2020, Jackson County's unemployment rate was 4.0, which was in line with previous year averages. Because of the quarantine and shut downs happening across the country, unemployment rates drastically increased, rising to 17.5 in Jackson County during May 2020 (NC Department of Commerce, Demand Driven Delivery System: Local Area Unemployment Statistics, 2021). Rates remained higher than average through the end of year, then leveled out during 2021, with the October 2021 unemployment rate at 3.2 in Jackson County (The Sylva Herald & Ruralite, 2021).

Education

"Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. This is true even when factors like income are taken into account" (County Health Rankings, 2021).

Jackson County is home to both Southwestern Community College and Western Carolina University, as well as Jackson County Public Schools which is comprised of four kindergarten – 8th grade schools, two kindergarten – 12th grade schools, a high school, and two early colleges. In the 2015 – 2019 time period, Jackson County's adult population included the following educational attainment: 28.6% high school graduation (or equivalent), 21.3% some college with

no degree, and 30.4% with a bachelor's degree or higher (U.S. Census Bureau, Educational Attainment: ACS 5-Year Estimates, 2021). Jackson County's drop-out rate for the 2019-2020 school year was .67%, or 8 individuals. This is an improvement from all years prior, at least back to the 2010-2011 school year (NC Department of Public Instruction, Consolidated Data Reports: High School Dropout Counts and Rates, 2021). Additionally, 93.1% of students graduated in Jackson County 2019-2020 or earlier, which is a higher percentage than the WNC region and the state (Public Schools of North Carolina, 2021).

Racism and Discrimination

"Racism is an underlying or root cause of health inequities and leads to unfair outcomes between racial and ethnic groups. Different geographic areas and various racial and ethnic groups experience challenges or advantages that lead to stark differences in life expectancy, infant mortality, poverty, and more" (County Health Rankings, 2021).

In 2021, WNC residents were asked a series of questions regarding race, ethnicity, and inequality. In Jackson County, one quarter of the population disagreed that the community is a welcoming place for people of all races and ethnicities. In comparison, Jackson County's percentage was higher than all other WNC counties. Over the course of their lifetime, 12.9% reported they have often or sometimes been threatened or harassed due to their race/ethnicity, and 3.7% were often or sometimes treated unfairly when seeking medical care due to race/ethnicity. Further, 16.7% were often or sometimes treated unfairly at school over the course of their lifetime (WNC Health Network, 2021).

Community Safety

"Injuries through accidents or violence are the third leading cause of death in the United States, and the leading cause for those between the ages of one and 44. Accidents and violence affect health and quality of life in the short and long-term, for those both directly and indirectly affected, and living in unsafe neighborhoods can impact health in a multitude of ways" (County Health Rankings, 2021).

For crime rates, the most updated information is pre-pandemic. Jackson County's overall crime (murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft) rate was 2,784 per 100,000 people. This is above the WNC average but below the state average. It is a slight increase from 2018, but a decrease from 2016 and 2017. For violent crimes (murder, rape, robbery and aggravated assault), Jackson County's rate is above the WNC regional average (185) at 249 per 100,000 people. This rate is below the state average (407). Property crime (burglary, larceny and motor vehicle theft) in Jackson County is 2,535 per 100,000 people, which is higher than both the WNC region and state average (NC Department of Justice, 2021).

For fiscal year 2019-2020, Jackson County experienced 111 calls for sexual assault from 59 clients. Types of sexual assault reported were rape (14), child sexual offense (4), human trafficking (22), and other (26). Offender relationship is broken down as follows: relative (13), acquaintance (5), boy/girlfriend/partner (10), spouse (8), stranger (13), and unknown (16). In the 2019-2020 fiscal year, there were 797 calls for domestic violence from 216 clients. Total number

of services provided reached 10,383, and the shelter was full for 119 days of the fiscal year (NC Department of Administration, 2021). In 2019, there was 1 domestic violence homicide, and in 2020, there were 2 domestic violence homicides (NC State Bureau of Investigation, 2021).

During the 2020 calendar year in Jackson County, there were 66 youth served by community Juvenile Justice programs, and 5 youth placed in detention centers (NC Department of Public Safety, 2021).

During the 2019-2020 fiscal year, there were 155 children with investigated reports of abuse and neglect in Jackson County. Of those reports closed within the timeframe, 13 had substantiated findings with 2 for both abuse and neglect, 1 for abuse, and 10 for neglect. 21 reports were found to be unsubstantiated. (UNC-CH Jordan Institute, 2021).

For school violence, there were 27 total acts committed during the 2019-2020 school year, with 1 being assault on school personnel, 3 being possession of a weapon, 6 being possession of an alcoholic beverage, and 17 being possession of a controlled substance (NC Department of Public Instruction, Consolidated Data Reports: Total Number of Acts for Individual Schools, 2021).

Housing and Transportation

"The housing options and transit systems that shape our communities' built environments affect where we live and how we get from place to place. The choices we make about housing and transportation, and the opportunities underlying these choices, also affect our health" (County Health Rankings, 2021).

Affordable housing has continued to be an increasing issue in our region, state, and country. For renters in Jackson County during the 2015-2019 period, 43.9% spent greater than 30% of their household income on housing, and 28.9% spent 50% or greater of their household income on housing (with those spending 50% being much higher than the WNC and state averages) (U.S. Census Bureau, Gross Rent as a Percentage of Household Income in the Past 12 Months: ACS 5-Year Estimates, 2021). The median gross rent during the same time period was $739 (U.S. Census Bureau, Median Gross Rent (Dollars): ACS 5-Year Estimates, 2021). During the same time period, among owned units, 27.7% spent greater than 30% of their household income on housing, and 11% spent greater than 50% of their household income on housing (U.S. Census Bureau, Mortgage Status by Selected Monthly Owner Costs as a Percentage of Household Income in the Past 12 Months: ACS 5-Year Estimatse, 2021).

In Jackson County during 2021, 9.2% of the population had a time in the past year when their home was without electricity, heating, or water. Additionally, over a quarter of the population always, usually, or sometimes worried or stressed about paying rent or mortgage in the past year. A little over 5% had to live with a friend or relative in the past 3 years due to a housing emergency, and .8% reported living on the street, in a car or a temporary shelter, also in the past 3 years (WNC Health Network, 2021). This number is probably underreported. The cost to rent

or own a home has soared, while salaries have not, which has made affording rent or a mortgage difficult.

During the 2015-2019 time period, Jackson County had 16,773 occupied housing units. Of those homes, 21.7% were mobile homes or other type of housing, 14.6% were built in 1959 or earlier, 11.8% were heated with fuel oil, kerosene, coal, coke, or other fuels, and 5.8% had no vehicle available (U.S. Census Bureau, Physical Housing Characteristics for Occupied Units: 2015-2019 ACS 5-Year Estimates, 2021).

Family & Social Support

"People with greater social support, less isolation, and greater interpersonal trust live longer and healthier lives than those who are socially isolated. Neighborhoods richer in social capital provide residents with greater access to support and resources than those with less social capital" (County Health Rankings, 2021).

Since 2011, there have been 4 CHA cycles in Jackson County (2011, 2015, 2018, and 2021). During the first cycle, 82% of Jackson County residents reported they always or usually get the needed social/emotional support they need. This percentage has continued to decline each CHA cycle, with now 66% always or usually receiving the social/emotional support they need. Further, 69% always or usually have someone to rely on for help when needed (WNC Health Network, 2021).

Chapter 3 – Health Data Findings Summary

Mortality and Health Inequities

According to the Appalachian Regional Commission, Jackson County is located in the South Central subregion of Appalachia. Residents in rural Appalachia experience great disparity. Roughly 42% of the Central Appalachian population is rural, compared to 20% of the national population (American Psychiatric Association, 2021). Rural Health Information states that, "rural risk factors for health disparities include geographic isolation, lower socioeconomic status, higher rates of health risk behaviors, limited access to healthcare specialists and subspecialists, and limited job opportunities." Rural residents are more likely to experience health inequities compared to their urban and suburban peers (Rural Health Information Hub, 2021).

The top leading causes of death in Jackson County mirror North Carolina's top leading causes of death, which are total cancer, diseases of the heart, and chronic lower respiratory disease. Life expectancy in Jackson County is 78.6 years, which is above the WNC regional average (77.44 years) and comparable to the state average (78.2 years). According to Indian Health Services, American Indians and Alaska Natives born today have a life expectancy that is on average 5.5 years less than all races in the United States (Disparities, 2021). Health inequities for people who are uninsured, low-income or racial/ethnic minorities continue to be evident when reviewing data for Jackson County and the state.

In Jackson County and WNC, 35% of the population has been told they have high blood pressure, and 33% of Jackson County residents have been diagnosed with high cholesterol. Of those diagnosed, the majority are taking action to control their numbers (WNC Health Network, 2021).

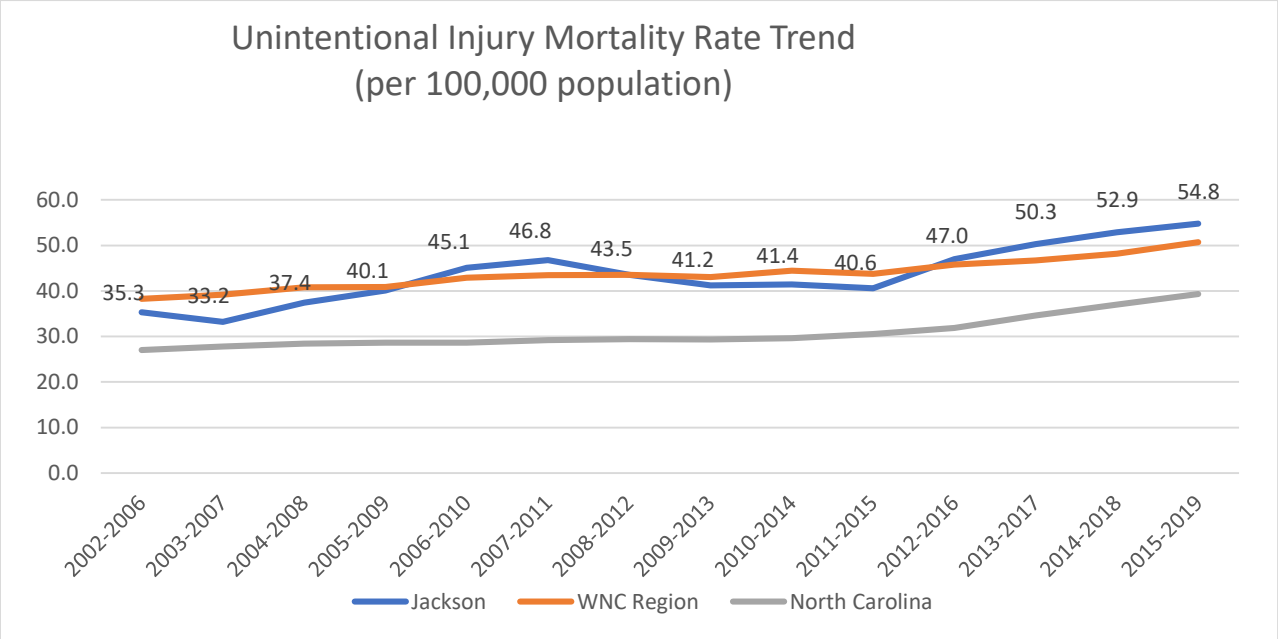
Sadly, during the 2015-2019 time period, 422 Jackson County residents lost their lives due to cancer. This is a rate of 148 per 100,000 which is actually lower than the WNC Region (157) and state (158). Men continue to have higher rates of cancer mortality than women. Of the 422 deaths in Jackson County, 241 were men and 181 were women. Cancer mortality by race continues to show health disparities for minority populations. During the same time period, White, non-Hispanic residents died from cancer at a rate of 147 per 100,000, while American Indian, non-Hispanic residents have a rate of 196 deaths per 100,000. Rates for African Americans were unstable in Jackson County, though the North Carolina cancer mortality rate for African Americans is 181. The state average for African Americans is higher than the state's White (157), American Indian (157), Hispanic (82), and other races' (99) cancer mortality rates (NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021). The most common cancer mortality sites in Jackson County were lung/bronchus, prostate, breast, and colon/rectum (NC SCHS, n.d.).

On a positive note, the heart disease mortality rate in Jackson County has decreased significantly since the early 2000s from 200 to 149 per 100,000 people during the 2015-2019 time period.

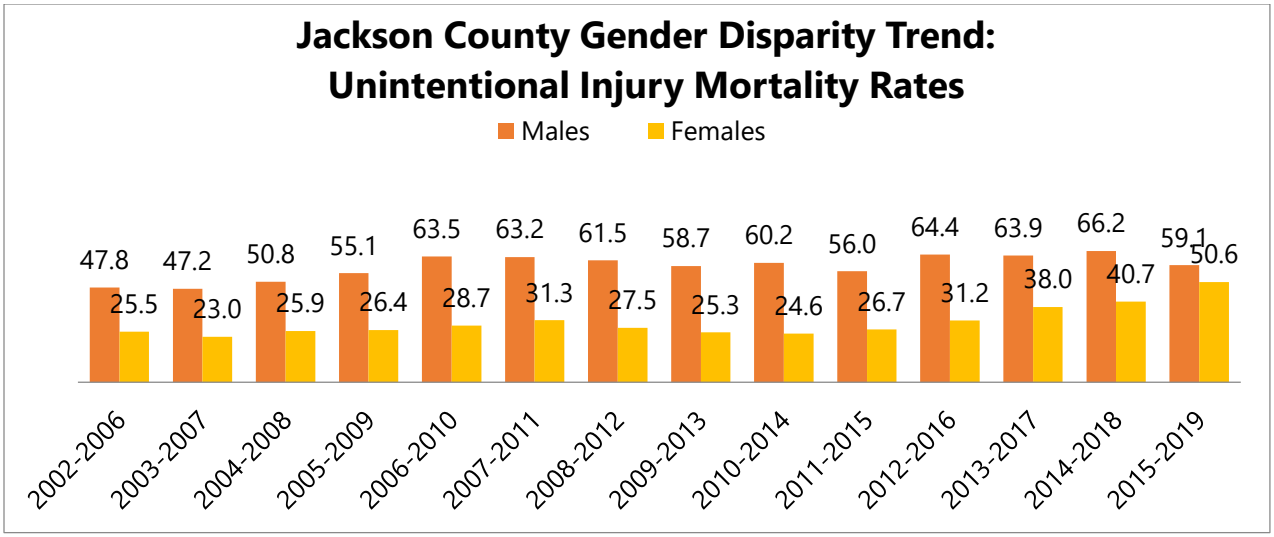
The Heart Disease Mortality Rate for White, non-Hispanic residents in Jackson County was 137 per 100,000, while the American Indian, non-Hispanic Heart Disease Mortality Rate was much higher, at 279.5 during the same time period. Rates were unstable for Jackson County's African American population (NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021).

The Chronic Lower Respiratory Disease in Jackson County during the 2015-2019 time period was 48.6, which is lower than the regional rate, but higher than the state rate. During that same time period, the stroke mortality rate in Jackson County was 34, which is lower than both the WNC region and state (NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021).

According to the Centers for Disease Control and Prevention, unintentional injuries are the leading cause of death for Americans age 1 – 44 years. This includes opioid overdoses and unintentional poisonings, as well as unintentional drownings, motor vehicle crashes and falls. Suicide is now the 2nd leading cause of death for the same age group and numbers continue to rise. Homicide remains in the top 5 leading causes as well (CDC, 2021). In Jackson County, WNC region and the state, unintentional injury mortality rates have increased significantly since the early 2000s. As shown in the chart below, Jackson County's current rate (54.8) is now higher than the WNC region (50.7) and the state (39.3). Further, males continue to die from unintentional injuries more often than females, though the large gap between the two has started to close. The second chart below shows the changes between the gender gap overtime (NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021).



(NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021)



(NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021)

Unintentional Poisoning mortality continues to be higher in Jackson County at a rate of 24 per 100,000 people, compared to the WNC region (23) and the state (19). (NC SCHS, Unintentional Poisoning Mortality Rates per 100,000: County Health Data Book, 2021). According to the NC Department of Health and Human Services, commonly prescribed opioid prescriptions (oxycodone, hydrocodone, codeine) were the leading causes of opioid-involved overdoses historically. However, heroin, fentanyl, and fentanyl analogues are involved in the majority of these deaths now. A wide variety of demographics and both urban and rural communities are experiencing an increase in overdose deaths, though the most commonly affected people are white or American Indian, male, and 25 to 48 years old (Injury Free NC, 2021).

A compelling data point regarding the increase in opioid-involved overdoses is the number of community naloxone reversals. In Jackson County in 2018 there were 8 reversals, while in 2020 there were 65. This is a rate of 148 per 100,000. For perspective, the WNC region has a rate of 71 and the state has a rate of 31 per 100,000 (Metrics, 2021).

Positively, unintentional motor vehicle injury mortality rates have improved in Jackson County, the WNC region and the state. During the 2002-2006 time period, Jackson had a rate of 19% with 35 total deaths. During the 2015-2019 time period, Jackson had an improved rate of 14% with 30 total deaths. In comparison, during the most recent time period analyzed, the WNC region average was 13%, and the state average was 15% (NC SCHS, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County: County Health Data Book, 2021).

Beginning in 2019, the COVID-19 pandemic has caused deaths across our entire world. As of December 29, 2021, Jackson County has had a total of 6,266 confirmed cases and 79 resident deaths (COVID-19 North Carolina Dashboard, 2021). Across the United States, data has shown that races other than white are more likely to die of COVID-19. The ratios are as follows: American Indian/Alaska Natives 2.2 times, Hispanic persons 2.1 times, Hispanic persons 1.9 times, and Asian persons .9 times more likely to die of COVID-19 than white persons (CDC, Risk for COVID-19 Infection, Hospitalization, and Death by Race/Ethnicity, 2021).

Health Status & Behaviors

In Jackson County, 82% of the population believes themselves to be in good or excellent health, while 18% of the population believes themselves to be in fair or poor health. This is lower than the state average but significantly higher than the United States average (WNC Health Network, 2021).

The birth rate has seen a steady decline since at least the 2006-2010 time period, and this is a trend seen across the WNC region and the state (NC SCHS, North Carolina Vital Statistics Volume 1, 2021) The pregnancy rates for women ages 15-44 have trended downwards since at least 2006 in Jackson County, the WNC region, and the state. Jackson County's current pregnancy rate for women ages 15-44 is 44.0 per 100,000 births, as compared to 63 in 2006. The pregnancy rate for women ages 15-19 has gone up and down since 2006 (35). Through 2018 and 2019, rates saw a steady decline, with rates of 16 and 14, respectively (NC SCHS, Vital Statistics: Pregnancy, Fertility, and Abortion Rates per 1,000 Population, 2021).

As of 2018, 10% of pregnant mothers in Jackson County had gestational diabetes. Additionally, 28% of pregnant women had an overweight BMI, and 29% had an obese BMI. Prenatal smoking continues to be an issue in Jackson County and in WNC, though the rates have been trending downward. In 2019, 13% of pregnant women in Jackson County were smoking, which is lower than the WNC region (17%) but higher than the state (8%) (NC SCHS, County Health Databook: Birth Indicator Tables by State and County, 2021).

Seeking prenatal care during pregnancy is very important. The prenatal care trend has stayed relatively the same in Jackson County, with 73% of pregnant women receiving prenatal care in the first trimester in 2019. This is lower than the WNC rate at 77%, but higher than the state at 68% (NC SCHS, BABYBOOK: County Resident Births by Month Prenatal Care Began, 2021).

The infant mortality rates were last updated for the 2015-2019 time period. Jackson County has an infant mortality rate of 7.9% per 1,000 lives births, meaning 15 infants died during the time period. This rate is higher than both the WNC region (6.4%) and the state (7%) (NC SCHS, Infant Rates per 1,000 Live Births: County Health Data Book, 2021).

Jackson County residents, and the WNC region, continue to report a decline in receiving social/emotional support when needed. In 2012, 82% of Jackson County residents and 81% of WNC residents reported they always/usually get the needed social/emotional support. Those numbers changed to 66% in Jackson County and 70% in WNC in 2021. Further, the percentage of folks reporting 7 or more poor mental health days in the past month has increased significantly in both Jackson County (20%) and WNC (22%). Both percentages were under 15% in 2012. In Jackson County, 12% of the population's typical day is extremely or very stressful. This is lower than the WNC rate (13%) and the United States rate (16%). Despite these rates, 84% of Jackson County residents and 87% of WNC residents are confident in their ability to manage stress. Additionally, 74% of Jackson County residents are able to stay hopeful in difficult times. Sadly, Jackson County has the highest percentage of residents (12%) in WNC that have

considered suicide in the past year. The WNC average is 8%. Dissatisfaction with life has doubled in both Jackson County and WNC since 2012, with rates at 5% for both in 2012, and rates at 10% in 2021 (WNC Health Network, 2021).

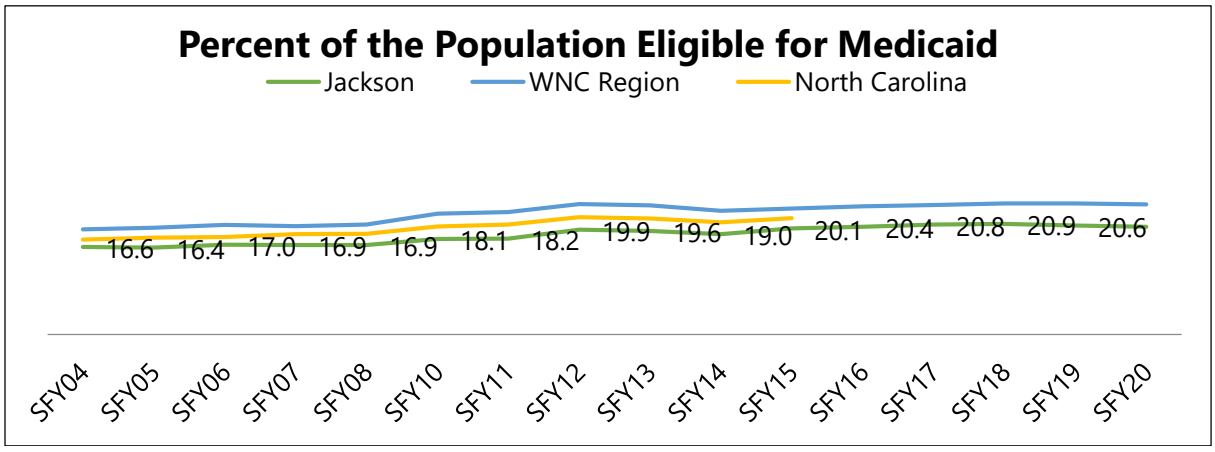
Clinical Care & Access

Since 2012, Jackson County has experienced an overall decline in the number of active health professionals per 10,000 population ratios as of 2019. This includes physicians, primary care physicians, dentists, and registered nurses. Physician assistant's increased from 3.4 to 3.6. Nurse practitioners are the exception as their rates increased significantly from 4.7 to 10.83. Pharmacists numbers were too small to be calculated accurately. These numbers are all pre-pandemic. Further, data shows that in 2012, there were small percentages of active health professionals over age 65 working in Jackson County. 2019 shows a significant increase in the percentage of active physicians, primary care physicians, dentists, registered nurses, physician assistants and nurse practitioners over age 65 in Jackson County (Cecil G. Sheps Center for Health Services Research, 2021).

In Jackson County there are 2 adult care homes with a maximum capacity of 145, and 2 nursing homes with a maximum capacity of 200 (Licensed Facilities, Adult Care Homes, Family Care Homes, Nursing Facilities (by County), 2021). Additionally, Jackson County has 3 home care and home care with hospice facilities, with one also offering home health (NC DHHS, 2021).

The uninsured population in Jackson County has decreased significantly from 16% in 2012 to 6.8% in 2021. (WNC Health Network, 2021). During the state fiscal year of 2004, 17% of Jackson County residents were eligible for Medicaid, as compared to 20% of the population in the state fiscal year 2020 (NC DHHS, Annual Report: N.C. Medicaid Eligibility and Program Expenditures for Which the County is Responsible for Its Computable Share, 2021).

In 2021, 81% of Jackson County residents have a specific source of ongoing care, with 78% reporting they had a routine checkup in the past year. As telemedicine became even more widely utilized during the pandemic, 46% of residents are extremely or very likely to use telemedicine for future routine care (WNC Health Network, 2021).



(NC DHHS, Annual Report: N.C. Medicaid Eligibility and Program Expenditures for Which the County is Responsible for Its Computable Share, 2021)

Jackson County is home to 5 mental health facilities, with 3 of them being overnight with a 15 bed capacity (NC DHHS, Licensed Facilities, Mental Health Facilities (by County), 2021). Interestingly, 26% of Jackson County residents are currently taking medicine or receiving treatment for mental health, which is right in line with the WNC rate, but higher than the US rate of 17%. In 2021, 24% of Jackson County residents were unable to obtain the needed mental health services needed in the past year. This is higher than the WNC and United States averages, and speaks to the limited resources in our county (WNC Health Network, 2021).

Chapter 5 – Physical Environment

"The physical environment is where individuals live, learn, work, and play. People interact with their physical environment through the air they breathe, water they drink, houses they live in, and the transportation they access to travel to work and school. Poor physical environment can affect our ability and that of our families and neighbors to live long and healthy lives" (Physical Environment, 2022).

Air & Water Quality

"Clean air and safe water are prerequisites for health. Poor air or water quality can be particularly detrimental to vulnerable populations such as the very young, the elderly, and those with chronic health conditions." (County Health Rankings, 2021).

Exposure to particulate matter is a major concern for human health and can have effects on breathing and respiratory systems, damage to lung tissues, and cause premature death. Small particulate matter in air pollution has the best chance of reaching the lower respiratory tract. In 2020, the Air Quality Index (AQI) measurement for Jackson County was as follows: 109/113 days with good air quality and 4/113 days with moderate air quality. Small particulate matter was present at the pollutant level on 113 of 113 monitored days (Air Quality Index Reports, 2020).

In 2019, the Toxic Release Inventory (TRI) Summary ranked 85 counties based on toxic chemicals released, with the 85th county being the county with the least amount of chemicals released. The TRI reported that Jackson County ranks 77 out of 85 due to the number of pounds of lead (187) released from Jackson Paper. In comparison, neighboring Haywood County ranks 9 out of 85 due to 2,645,389 pounds of toxic chemicals released in 2019 (TRI Release Reports: Chemical Reports, 2021).

Clean water is also a prerequisite for health. Having access to clean water supports healthy brain and body function, growth, and development. While drinking water is improving, many contaminants still pollute our water sources – pharmaceuticals, chemicals, pesticides, and microbiological contaminants. In Jackson County, 54.3% of the population, or 23,323 residents, are served by community water systems (U.S. Census Bureau, ACS Demographic and Housing Estimates: 2018 ACS 5-Year Estimates, 2021). The remainder of the population accesses water from wells, directly from a body of surface water, or from bottled water.

Exposure to radon is perhaps the most significant undervalued health problem in Western North Carolina. While the average indoor radon level in Jackson County is two times the national average at 2.8 pCi/L, there are counties in WNC with much higher levels. For reference, a screening level of 4 pCi/L is the Environmental Protection Agency's recommended action level for radon exposure. Radon is the second cause of lung cancer after cigarette smoking (McClure, 2021).

Beyond drinking water, poor surface water quality can make lakes and streams' fish unsafe for consumption. In an area that prides itself on outdoor water sports and fishing, water quality is of

utmost importance in Jackson County. In February 2016, the Occupational and Environmental Epidemiology Branch of the NC Division of Public Health issued an advisory for Glenville Reservoir, stating that "recent testing showed elevated levels of mercury" and that "pregnant women, nursing women, and women who may become pregnant and children under age 15 should not eat any walleye, smallmouth or largemouth bass from Glenville Reservoir." The entire state of North Carolina has elevated levels of mercury in largemouth bass. Other people should not eat more than one meal (about 6 ounces of raw fish) per month of the three types of fish from Glenville Reservoir (Fish Consumption Advisories, 2022). Toxicologists believe aerial deposition to be the cause for the mercury, which rises into the air from fossil fuels burning and over time settles to the bottom of the waterway where fish feed off algae. No change in the mercury levels is expected, barring human or weather changes.

Additionally, secondhand smoke, or environmental tobacco smoke (ETS) is a known carcinogen with more than 7,000 chemical compounds, 250 of which are known to be harmful and 69 of which cause cancer. According to the CDC, there is no risk-free level of exposure to secondhand smoke. In infants and children, it causes more frequent and severe asthma attacks, respiratory and ear infections, and is a cause of Sudden Infant Death Syndrome. In adults, coronary heart disease, stroke, and lung cancer are all attributed to secondhand smoke (CDC, Health Effects of Secondhand Smoke, 2021). In 2021, 10% of Jackson County residents breathed someone else's secondhand smoke in the past 7 days at their workplace. This is a significant improvement since 2018, when the percentage was almost 19%. This decrease is a trend seen across Western North Carolina (WNC Health Network, 2021).

Access to Healthy Food & Places

Food security, as defined by the United Nations' Committee on World Food Security, exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

As of 2016, there were 7 grocery stores and 4 farmers' markets available within Jackson County for residents and visitors. There are close to 5% of households that have no car and low access to a store (U.S. Department of Agriculture, 2021). In 2021, one quarter of Jackson County residents ran out of food at least once and/or worried about running out of food in the past year. This is an increase since 2018 (19%) and Jackson County's rate is the highest of all WNC counties, though it is significantly lower than the United States average of 34% (WNC Health Network, 2021).

If residents have access to a safe place for recreational opportunities, whether that is a park, greenway, walking trail, playground, etc., they are more likely to live an active lifestyle. The Jackson County Parks and Recreation Department has two Recreation Centers for indoor physical activity – one in the Cashiers/Glenville community, and the Cullowhee Recreation Center for the Northern portion of the county. Western Carolina University has its own Campus Recreation Center for students, faculty and staff. There are nine outdoor parks (including outdoor spaces at both recreation centers), the Jackson County Greenway, and six river access parks. There are currently two county-owned outdoor swimming pools available during the

summer months, though the County is actively working towards building an indoor pool at the Cullowhee Recreation Complex. Western Carolina University does have an indoor pool available for students, faculty, and staff, and community programs like children's swimming lessons. The Town of Sylva also offers four parks, including the 1,100 acre Pinnacle Park that reaches an elevation of over 5,000 feet (Town of Sylva, 2022). The close proximity to the Blue Ridge Parkway, Great Smoky Mountains National Park, and Nantahala National Park offers endless opportunities for outdoor recreation in Jackson County.

Chapter 6- Health Resources

Health Resources

Process

The Community Health Assessment and Community Health Needs Assessment Facilitators reviewed health resources through 2-1-1, which can be found online at https://nc211.org/ or by telephone by simply dialing 2-1-1 or calling 1-888-892-1162. The community tool 2-1-1 continues to serve as the updated resource list accessible via phone and web 24/7 for Jackson County and Western North Carolina residents. The resources listed with 2-1-1 are updated and are available in place of the CHA Work Group or others compiling a printed directory. The United Way of North Carolina has taken on the task of regularly updating the 2-1-1 resource per county. Local groups also annually review the resources listed and submit updates as needed.

Key stakeholders in the community were also surveyed on the strengths and challenges of Jackson County, which provided insight on what is seen as working well and areas that may need additional focus.

Findings

Overall, key stakeholders felt inspired, confident or hopeful when thinking of the collective community response to the COVID-19 pandemic. The coordination of the COVID-19 vaccination clinics was mentioned numerous times. A public health representative stated, "Seeing so many community partners and the National Guard work together for massive vaccine events was really inspiring and gave me a sense of hope after such a trying time. Seeing how hard many have worked this past year to make sure families have been fed has been inspiring. We live in a community that really cares about each other." The strong support for one another was reiterated, as another public health representative noted, "We are a federally recognized tribe and have felt that our partnerships with counties have gotten stronger through this crisis."

Working together to feed children and families is an area Jackson County excels in. There are various programs in the community to help with food insecurity. There are Tribal Food Distribution, Family Support, Tribal and County Women's Infants and Children's programs, the Community Table, Meals on Wheels, United Christian Ministries, Jackson County Public Schools Nutrition and Summer Feeding Program, local churches who participate in food ministry, and more.

Another strength is available health services through the Harris Regional Hospital health system, County departments such as Public Health, Animal Shelter, Social Services, Department on Aging, Emergency Management and Parks and Recreation Department, and Vecinos Farmworkers Health Program. Our community also provides quality resources for the uninsured and underinsured such as the Mountain Area Pro Bono PT Clinic, Blue Ridge Health FQHC, Nurse Family Partnership, and more. Further, these resources have shown adaptability over the course of the COVID-19 pandemic by introducing telemedicine or virtual services to maintain connectivity and health during these trying times.

Access to free, outdoor recreational opportunities is always stated multiple times during the key informant surveys as a valuable resource in Jackson County. Even when residents do not have the funds to access a private gym, the Greenway Trail and many other free outdoor recreational opportunities provide residents with the setting they need to be active. Lowes and the Ramsey Center at Western Carolina University welcome people to walk laps at their indoor space on cold or bad weather days.

A public health representative noted the Jackson County Public School system has "understanding and child-centered educators, counselors and social workers" to help address adverse childhood experiences and child trauma. There are informed resources such as the Care Management for At-Risk Children program, AWAKE Children's Advocacy, HIGHTS, Boys & Girls Club of Cashiers Valley, Mountain Projects, Head Start Child Care centers, and private therapists and counselors working with children and families.

Resource Gaps

Based on local review of available resources and collaborative discussions around general availability of services (or those specifically related to prioritized needs), these resource gaps were identified that need to be filled in Jackson County:

- **Access to Affordable Healthy Food:** A lack of education about what is healthy and how to garden/preserve, proliferation of inexpensive fast food, and increasing prices of healthy food at retail stores
- **Access to Mental Health Services:** The lack of mental health services available, services available being months behind, cost of services for middle class, abuse and neglect of children, stigma towards mental health needs, lack of time to focus on self and health
- **Discrimination:** Lack of diversity awareness which leads to inadvertent exclusion or mistreatment, historic distrust in medical institutions, and micro and macro aggressions
- **Public Transportation:** Remote living, isolation, limited affordable public transportation
- **Safe & Healthy Housing:** High cost of land and development, tenant selection plans that can be prohibitive for renters (no pets, etc), tourist industry raising prices for rentals, lack of resources to afford housing and maintain housing
- **Substance Use & Overdose:** A post-overdose response team and/or follow-up with a social worker or mental health professional after an overdose are greatly needed

Chapter 7 –Health Priority Identification

Identifying Health Priorities

Process

Every three years we take a fresh look at all of the current data from our county that reflects the health of our community. We then use this information to help us assess how well we are doing and what actions we need to take moving forward.

Beginning in August 2021, our team spent time understanding the data and uncovering what issues were affecting the most people in our community. We also interviewed community leaders to find out what they are most concerned about. To identify the significant health issues in our community, our key partners (see a full list in the Executive Summary) reviewed data and discussed the facts and circumstances of our community.

We used the following criteria to identify significant health issues:

- Data is related to past health priorities
- Data reflects a concerning trend related to size or severity
- Significant disparities exist
- Issue surfaced as a topic of high community concern
- County data deviates notably from the region, state or benchmark

Once our team made sense of the data, they considered the severity of the issue, the relevancy of the issue, and the feasibility in improving the issue. We presented key health issues to a wide range of partners and community members. The participants used the information we presented to review each issue, and then agreed on their top areas of concern.

This process, often called health issue prioritization, is an opportunity for various community stakeholders, such the hospital, health department, public school system, parks and recreation, and more to agree on which health issues and results we can all contribute to, which increases the likelihood that we will make a difference in the lives of people in our community.

Identified Issues

During the above process, the CHA Work Group identified the following health issues or indicators:

- *Lack of Healthy Eating*: Few residents are consuming the recommended servings of fruits/vegetables.
- *Lack of Physical Activity*: Few residents are meeting physical activity recommendations.
- *Chronic Disease Rates:* Chronic disease rates are high, especially diabetes.
- *Substance Use*: There has been an increase in opioid-involved overdoses. Tobacco use, particularly vaping, continues especially for young adults and pregnant women.
- *Mental & Behavioral Health*: The percent of residents experiencing suicide ideation and poor mental health is very alarming.
- *Racial Inequities*: A quarter of the population disagrees that the community is a welcoming place for people of all races and ethnicities.

- *The COVID-19 Pandemic*: The pandemic has negatively impacted residents in a variety of ways, from social isolation, increase in stress, food insecurity, financial issues, physical health and more.

Priority Health Issue Identification

Process

During our group process, the following criteria were applied to the issues listed above to select priority health issues of focus for our community over the next three years:

- Criteria 1 – Relevant – How important is this issue? *(Size of the problem; Severity of problem; Focus on equity; Aligned with HNC 2030; Urgency to solve problem; Linked to other important issues)*
- Criteria 2 – Impactful – What will we get out of addressing this issue? *(Availability of solutions/proven strategies; Builds on or enhances current work; Significant consequences of not addressing issue now)*
- Criteria 3 – Feasible – Can we adequately address this issue? *(Availability of resources (staff, community partners, time, money, equipment) to address the issue; Political capacity/will; Community/social acceptability; Appropriate socio-culturally; Can identify easy, short-term wins)*

Participants used an open discussion to rate the priorities using the criteria listed above.

Identified Priorities

The following priority health issues are the final community-wide priorities for our county that were selected through the process described above:

- *Healthy Eating & Physical Activity:* Originally, obesity prevention through eating healthy and being physically active, emerged as health priorities during the 2011 CHA process. While much effort has occurred to positively increase healthy eating and physical activity, there is still much to be done. We are concerned by the low percentage of residents eating the recommended servings of fruits/vegetables and who are inactive. In addition, chronic disease rates such as diabetes are high.
- *Substance Use:* Substance use originally emerged as a health priority during the 2011 CHA process as well. Particularly concerning are the increase in overdose deaths, number of naloxone reversals and the lack of follow-up or education post-overdose, and tobacco use.
- *Mental Health*: Previous data cycles showed that resident's mental health had been suffering, but the COVID-19 pandemic severely exacerbated the strain on our mental health and the limited systems to address it. Jackson County had the highest suicide ideation percentage in all Western North Carolina counties, and many report ongoing days of poor mental health, seeking treatment for mental health, and not being able to get the mental health care that they need.

Jackson County

2021 Community Health Assessment Data

DEMOGRAPHICS

Total Population: 42,938
Population 65 years and older: 19.3%
Population Below Poverty Level: 18.7%

PRIORITY 1: OBESITY PREVENTION

Nutrition, Physical Activity, Food Insecurity

28.1% at a healthy weight

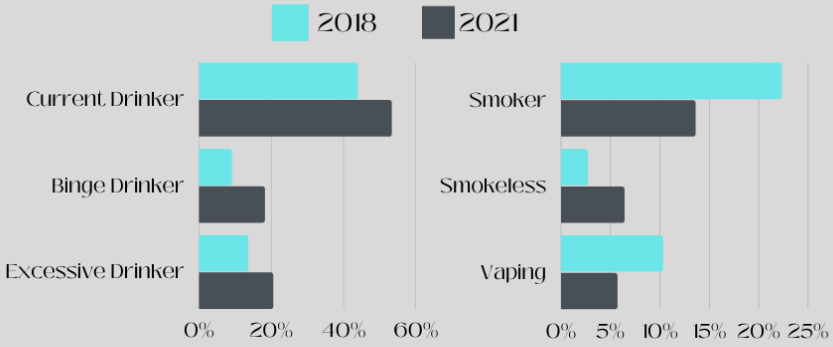
23% meeting physical activity recommendations

5.5% meeting nutrition standards
(5 or more servings of fruits/vegetables per day)

24.8% report being food insecure

PRIORITY 2: SUBSTANCE USE PREVENTION

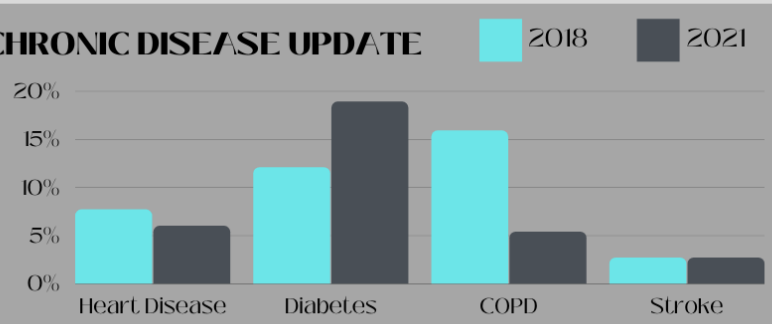
Opioid / Tobacco Awareness & Prevention



55% - Life has been negatively impacted by substance use (own or someone else's use)

16.7% - Used an illicit drug in the past month (self or someone they know)

CHRONIC DISEASE UPDATE



Jackson County

NEW & EMERGING DATA

COVID-19 PANDEMIC

- Lost a Job: 13%
- Lost Hours or Wages: 28.1%
- Lost Health Insurance Coverage: 4.5%
- Chose to Go Without Needed Health Care: 37%
- Unable to Get Needed Medical Care in the Past Year: 13.6%

EQUITY

- Disagree That the Community is a Welcoming Place for People of All Races & Ethnicities: 24.6%
- "Often/Sometimes" Threatened or Harassed Due to Race/Ethnicity: 12.9%
- "Often/Sometimes" Treated Unfairly Due to Race/Ethnicity When Getting Medical Care: 3.7%
- "Often/Sometimes" Treated Unfairly at School Due to Race/Ethnicity: 16.7%
- "Often/Sometimes" Criticized for My Accent or the Way I Speak: 44%

MENTAL HEALTH

- More Than 7 Days of Poor Mental Health in Past Month: 19.9%
- Have Considered Suicide in the Past Year: 12.4%
- Typical Day is "Extremely/Very Stressful" : 12.1%
- Currently Taking Medication or Receiving Treatment for Mental Health: 24.8%
- Did Not Get Mental Health Care or Counseling That was Needed in the Past Year: 23.9%
- Dissatisfied with Life: 10.7%
- Self-Reported Fair or Poor Mental Health Status: 20.8%
- Able to Stay Hopeful in Difficult Times: 73.7%

WNC Health Network. (2021). *WNC Healthy Impact Community Health Survey: Data Workbook.*

Collaboration

This document was developed by the Jackson County Department of Public Health in partnership with Harris Regional Hospital and other key partners as part of a local community health assessment process. We would like to thank and acknowledge several agencies and individuals for their contributions and support in conducting this health assessment:

Name	Agency	Role/ Contribution	Agency Website
Anna Lippard	Department of Public Health	CHA Work Group	Department of Public Health
Chelsea Burrell	Harris Regional Hospital	CHNA Facilitator & Action Team Chair	Harris Regional Hospital
Cristian Mireles	Harris Regional Hospital	Action Team Member	Harris Regional Hospital
C.Y. Wang	Western Carolina University	Action Team Member	WCU Health and Human Sciences
Doug Keskula	Western Carolina University	Steering Committee	WCU Health and Human Sciences
Eddie Wells	Department on Aging	Steering Committee Chair	Department on Aging
Emily McClure	Cooperative Extension	CHA Work Group	Cooperative Extension
Ericka Zimmerman	Western Carolina University	CHA Work Group	WCU Health and Human Sciences
Jackie Moore	Department of Public Health	Action Team Member	JCDPH Safe Routes to School
Jake Buchanan	Jackson County Public Schools	CHA Work Group	Jackson County Public Schools
Janelle Messer	Department of Public Health	CHA Facilitator & Action Team Co-Chair	Department of Public Health
Jenifer Pressley	Parks and Recreation Department	Action Team Member	Parks and Recreation
Jessica Philyaw	Jackson County Public Library	CHA Work Group	Jackson County Public Library
Katherine Pincura	Western Carolina University	CHA Work Group	WCU Health and Human Sciences
Kelly Brown	Jackson County NAACP	CHA Work Group	Jackson County NAACP
Kelly Doppke	Jackson County Public Schools	CHA Work Group	Jackson County Public Schools
Laura Cabe	Jackson County Public Schools	Action Team Co-Chair	Jackson County Public Schools

Laura Passmore	Mountain Projects Head Start	CHA Work Group	Head Start
Marianne Martinez	Vecinos Farmworker Health Program	Steering Committee	Vecinos
Martha Thomasson	Department of Public Health	CHA Work Group	Department of Public Health
Melissa McKnight	Department of Public Health	CHA Work Group	Department of Public Health
Michele Garashi Ellick	Great Smokies Health Foundation	CHA Work Group	Great Smokies Health Foundation
Patsy Allen	Jackson County NAACP	CHA Work Group	Jackson County NAACP
Patti Tiberi	Mountain Projects, Inc	CHA Work Group	Mountain Projects
Rosalyn Robinson	Blue Ridge Health	Steering Committee	Blue Ridge Health Sylva
Sara Jane Melton	Area Agency on Aging	Steering Committee	Area Agency on Aging
Sara Stahlman	Parent	CHA Work Group	
Shelley Carraway	Department of Public Health	Steering Committee	Department of Public Health
Sheryl Williamson	Department of Social Services	CHA Work Group	Department of Social Services
Tracy Fitzmaurice	Jackson County Public Library	Action Team Member	Jackson County Public Library

Executive Summary

Community Results Statement

Quality Health and Services for Every Jackson County Resident

Leadership for the Community Health Assessment Process

In Jackson County, leadership for the Community Health Assessment (CHA) process can be described as traditional, with the Jackson County Department of Public Health (JCDPH) as the responsible party. JCDPH collaborated very closely with Harris Regional Hospital Community Health Needs Assessment (CHNA) Facilitator for the entire process of data collection and analysis, reporting key findings to the community, determining priority with the community, and choosing and implementing strategy.

Name	Agency	Title	Agency Website
Janelle Messer	Jackson County Department of Public Health	Health Education Supervisor	health.jacksonnc.org
Chelsea Burrell	Harris Regional Hospital	Wellness Manager	myharrisregional.com

Partnerships

Community Partnerships are listed above in the Collaboration section on page 26. All CHA Work Group, Steering Committee and Action Team partners represent a wide variation of agencies and organizations across the county and region.

Regional/Contracted Services

Our county received support from **WNC Healthy Impact**, a partnership and coordinated process between hospitals, public health agencies, and key regional partners in western North Carolina working towards a vision of improved community health. We work together locally and regionally to assess health needs, develop collaborative plans, take action, and evaluate progress and impact. This innovative regional effort is coordinated and supported by **WNC Health Network**. WNC Health Network is the alliance of stakeholders working together to improve health and healthcare in western North Carolina. Learn more at www.WNCHN.org.

Theoretical Framework/Model

WNC Health Network provides local hospitals and public health agencies with tools and support to collect, visualize, and respond to complex community health data through Results-Based Accountability™ (RBA). RBA is a disciplined, common-sense approach to thinking and acting with a focus on how people, agencies, and communities are better off for our efforts.

Collaborative Process Summary

Jackson's collaborative process is supported on a regional level by WNC Healthy Impact. Locally, our process is supported by the CHA Work Group, the Healthy Carolinians Steering Committee, and the local hospital CHNA Facilitator. Phase 1 of the collaborative process began in January,

2021 with the collection of community health data. For more details on this process see page 30 for the Community Health Assessment Process.

Key Findings

Primary data showed that the overweight and obesity rates for Jackson County declined slightly since 2018, though 71% is still higher than the regional, state, and national average. The overwhelming majority of Jackson County residents are not consuming the recommended five or more servings of fruits or vegetables daily and less than a quarter of the population meets the physical activity guidelines of 150 minutes of exercise per week (WNC Health Network, 2021). The percentage of county residents who have been diagnosed as diabetic (19%) increased since 2018 (12%) (WNC Health Network, 2021).

Prior to the COVID-19 pandemic, substance use was already a devastating crisis across the United States. However, this issue has only increased during the past two years. In Jackson County, over half of the population stated their lives had been negatively impacted by substance use. The rates of people who smoke and/or vape have decreased since 2018, though the percentage of those who use smokeless tobacco has increased. The rates of binge and excessive drinking increased significantly from 2018 to 2021 (WNC Health Network, 2021).

The behavioral health data collected in the Spring of 2021 was alarming and prompted the addition of a new and third priority. The data revealed that 66% of residents "always/usually" get needed social or emotional support, which is close to a 10% decrease from 2018 and lower than the regional average of 70%. Jackson County had the highest percentage for suicide ideation in Western North Carolina, with 12% of residents having considered suicide in the past year. Almost a quarter of residents (24%) were unable to receive needed mental health services in the past year (WNC Health Network, 2021).

Health Priorities

The 2021 data points above, in addition to other key factors and statistics, were instrumental in the adoption of three strategies – healthy eating and physical activity, substance use prevention, and mental health.

Next Steps

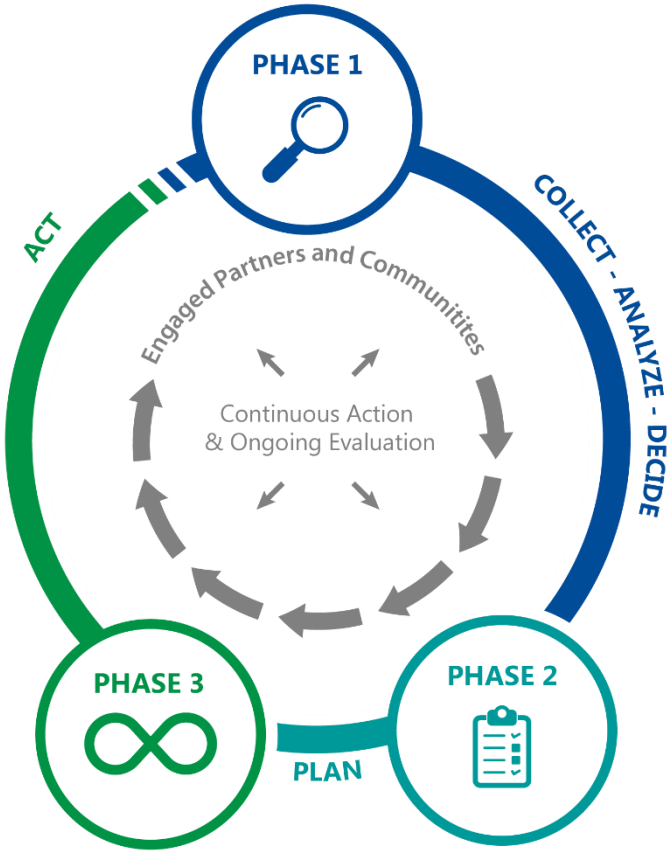
Throughout 2022, the CHA Work Group will work towards better understanding the story and root causes behind our priority issues, as well as engage with existing and new partners to help plan for and improve these areas. The CHA Work Group and Healthy Carolinians Steering Committee will help identify informed partners and evidence-based strategies, review statements from listening sessions and develop a Community Health Improvement Plan (CHIP). Action Teams will also be identified as a means to support improvement efforts.

Community Health Assessment Process

Purpose

The Community Health Assessment (CHA) is an important part of improving and promoting the health of county residents. A CHA results in a public report which describes the health indicators, status of the community, recent changes, and necessary changes to reach a community's desired health-related results.

Phases of the Community Health Improvement Process:

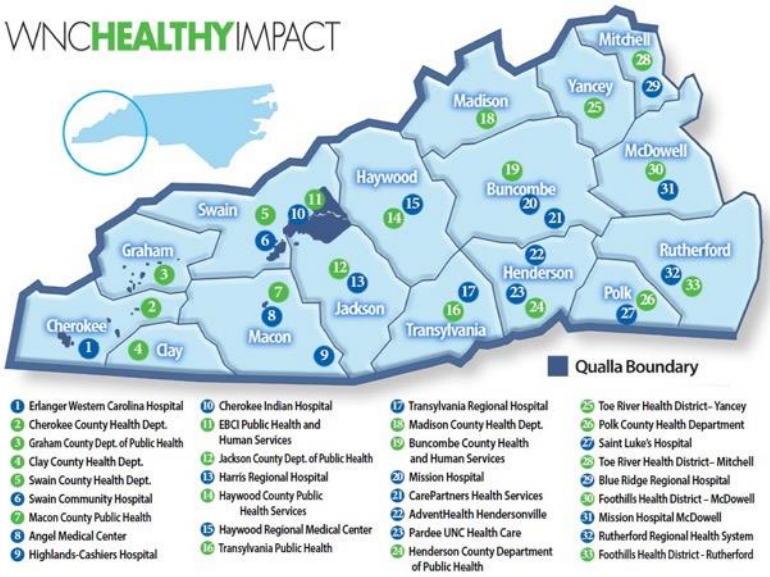


Definition of Community

Community is defined as "county" for the purposes of the North Carolina Community Health Assessment Process. Jackson County is included in Harris Regional Hospital's and Highlands-Cashiers Hospital's community for the purposes of community health improvement. Harris Regional Hospital was a key partner in this local level assessment.

WNC Healthy Impact

WNC Healthy Impact is a partnership among local and regional hospitals, public health agencies, and key regional partners towards a vision of improved community health. The vision is achieved by developing collaborative plans, taking action, and evaluating progress. More information is at www.wnchn.org/wnchealthyimpact.



Data Collection

The set of data reviewed for our community health assessment process is comprehensive, though not all of it is presented in this document. Within this community health assessment, we share a general overview of health and influencing factors, then focus more on priority health issues identified through a collaborative process. Our assessment also highlights some of our community strengths and resources available to help address our most pressing issues.

Core Dataset Collection

The data came from the WNC Healthy Impact regional data and local data. To ensure a comprehensive understanding, the dataset includes both secondary (existing) and primary (newly collected) data. The following data set elements and collection are supported by WNC Healthy Impact data consulting team, a survey vendor, and partner data needs and input:

- A comprehensive set of publicly available secondary data metrics with our county compared to the sixteen county WNC region
- Set of maps using Census and American Community Survey (ACS) data
- WNC Healthy Impact Community Health Survey (cell phone, landline and internet-based survey) of a random sample of adults in the county
- Online key informant survey

See **Appendix A** for details on the regional data collection methodology.

Additional Community-Level Data

In November and December 2021, there were 3 listening sessions conducted which focused on mental health and substance use in Jackson County.

Health Resources Inventory

We conducted an inventory of available resources of our community by reviewing a subset of existing resources currently listed in the 2-1-1 database for our county as well as working with partners to include additional information. See **Chapter 6** for more details related to this process.

Community Input & Engagement

Including input from the community is a critical element of the community health assessment process. Our county included community input and engagement in a number of ways:

- Partnership on conducting the health assessment process
- Through primary data collection efforts (key informant surveys and listening sessions)
- Recruitment of community members for the CHA Work Group
- By reviewing and making sense of the data with the CHA Work Group
- By attending the regional WNC Data Panel
- In the identification of health priorities with the CHA Work Group

In addition, community engagement is an ongoing focus for our community and partners as we move toward the collaborative planning phase of the community health improvement process. Partners and stakeholders with current efforts or interest related to priority health issues will continue to be engaged. We also plan to work together with our partners to help ensure that programs and strategies in our community are developed and implemented with community members and partners.

At-Risk & Vulnerable Populations

Throughout our community health assessment process, our team was focused on understanding general health status and related factors for the entire population of our county as well as the groups particularly at risk for health disparities or adverse health outcomes. For the purposes of the overall community health assessment, we aimed to understand differences in health outcomes, correlated variables, and access, particularly among medically underserved, low-income, and/or minority populations, and others experiencing health disparities. Community stakeholders have identified children, women, older adults, individuals and families who are low-income, people of color, people who are disabled, and people living in a rural setting as those who are most at-risk or vulnerable within our community.

Though there are not universally accepted definitions of the three groups, below are some basic definitions from the Health Department Accreditation Self-Assessment Instrument, as well as the at-risk and vulnerable populations of focus for our process and product.

Underserved populations are community members who not access health care either because there is a lack of services or providers available or because of limitations such as income, literacy/language barriers or understanding on how to access services, cultural competency of clinicians, trust, transportation, or other barriers. Jackson County's Health Professional Shortage Area (HPSA) scores (Mental Health: 7, Primary Care 15, and Dental Health: 18) prove that ALL Jackson County residents are underserved in this manner (HPSA Find, 2021). More specific examples of underserved populations in Jackson County include un- or under-insured, residents living below the poverty level and residents with limited educational attainment.

At-risk populations are the members of a particular group who are likely to, or have the potential to, get a specified health condition. This could be from engaging in behavior (such as

pregnant women who smoke) that could cause a specified health condition, having an indicator or precursor (high blood pressure) that could lead to a specified health condition or having a high ACE score (traumatic experiences), which is correlated with increased risk of specified health conditions. Examples of at-risk populations in Jackson County include residents who are low income, racial minorities, are un- or under-insured, use tobacco products, misuse substances, are overweight or obese, are sedentary, have poor nutrition, etc.

A vulnerable population is one that may be more susceptible than the general population to risk factors that lead to poor health outcomes. Vulnerable populations, a type of at-risk population, can be classified by such factors as discrimination/ prejudice based on race/ethnicity, socio-economic status, gender. cultural factors and age groups. Examples of vulnerable community members in Jackson County include those who are living below the poverty level, using WIC/FNS services, older adults, and more.

Chapter 8 - Next Steps

Collaborative Planning

Collaborative planning with Harris Regional Hospital and community partners will result in the creation of a Community Health Improvement Plan (CHIP). The CHIP outlines what will be planned, supported, and implemented to address the priority health issues that were identified in this report. The CHA and CHNA Facilitators will convene with the community to begin the CHIP process in 2022.

Sharing Findings

The CHA document will be available on the Jackson County Department of Public Health's website on the Community Health Data webpage. Details will also be presented to the Board of Health and the Healthy Carolinians Steering Committee, as well as shared with stakeholders and community partners. The CHA will also be shared with the general population through local news media and a hard copy available within the Health Department lobby and at the Jackson County Public Library.

For More Information and to Get Involved

Contact CHA Facilitator, Janelle Messer, at janellemesser@jacksonnc.org or (828) 587-8238

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PHOTOGRAPHY CREDITS

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APPENDICES

Appendix A – Data Collection Methods & Limitations

Appendix B – Survey Findings

- WNC Healthy Impact Survey Instrument
- Community Health Survey Results

APPENDIX A - DATA COLLECTION METHODS & LIMITATIONS

Secondary Data Methodology

To learn about the specific factors affecting the health and quality of life of residents of WNC, the WNC Healthy Impact data workgroup and data consulting team identified and tapped numerous secondary data sources accessible in the public domain. For data on the demographic, economic and social characteristics of the region sources included: the US Census Bureau; NC Department of Health and Human Services; NC Office of State Budget and Management; NC Department of Commerce; UNC-CH Jordan Institute for Families; NC Department of Public Instruction; NC Department of Justice; NC Division of Health Benefits; NC Department of Transportation; and the Cecil B. Sheps Center for Health Services Research. The WNC Healthy Impact data consultant team made every effort to obtain the most current data available at the time the WNC Healthy Impact Data Workbook was prepared. It is not possible to continually update the data past a certain date; in most cases that end-point is September 2021. Secondary data is updated every summer in between Community Health Assessment (CHA) years. The principal source of secondary health data for the WNC Healthy Impact Data Workbook is the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; the Centers for Disease Control and Prevention; National Center for Health Statistics; NC DPH Nutrition Services Branch; and NC DETECT. Environmental data were gathered from sources including: US Environmental Protection Agency; US Department of Agriculture; and NC Department of Environment and Natural Resources. Because in any CHA it is instructive to relate local data to similar data in other jurisdictions, throughout this report representative county data is compared to like data describing the 16-county region and the state of NC as a whole. The WNC regional comparison is used as "peer" for the purposes of this assessment. Where appropriate and available, trend data has been used to show changes in indicators over time. The WNC Healthy Impact data workbook contains only secondary data that are: (1) retrieved directly from sources in the public domain or by special request; and (2) are available for all 16 counties in the WNC Healthy Impact region. All secondary data included in the workbook are the most current available, but in some cases may be several years old. Names of organizations, facilities, and geographic places presented in the tables and graphs are quoted exactly as they appear in the source data. In some cases, these names may not be those in current or local usage; nevertheless, they are used so readers may track a particular piece of information directly back to the source.

Gaps in Available Information

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs. For example, certain population groups (such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish) are not represented in the survey data. Other population groups (for example, pregnant women,

lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups) might not be identifiable or might not be represented in numbers sufficient for independent analyses. In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly a great number of medical conditions that are not specifically addressed.

WNC Healthy Impact Community Health Survey (Primary Data)

Survey Methodology

The 2021 WNC Healthy Impact Community Health Survey was conducted from March to June 2021. The purpose of the survey was to collect primary data to supplement the secondary core dataset, and allow individual counties in the region to collect data on specific issues of concern. The survey was conducted throughout the entire WNC Healthy Impact region, which includes the following 16 counties: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey.

Professional Research Consultants, Inc. (PRC) designed and implemented the mixed-mode survey methodology, which included a combination of telephone (both landline and cell phone) interviews, online survey, as well as a community outreach component promoted by WNC Health Network and its local partners through social media posting and other communications. The survey methodology was designed to achieve a representative sample of the regional population that would allow for stratification by certain demographic characteristics, while also maximizing data collection timeliness and efficiency. Survey sampling and implementation methodology is described in greater detail below.

Survey Instrument

The survey instrument was developed by WNC Healthy Impact's data workgroup, consulting team, and local partners, with assistance from PRC. Many of the questions were derived from the CDC Behavioral Risk Factor Surveillance System (BRFSS) and other validated public health surveys. Other questions were developed specifically by WNC Healthy Impact, with input from regional and local partners, to address particular issues of interest to communities in western North Carolina. Each county was given the opportunity to include three additional questions of particular interest to their county, which were asked only of their county's residents.

The three additional county questions included in the 2021 survey were:

1) During the past 30 days, has someone you know used an illegal drug or taken a prescription drug that was not prescribed to them?

2) Overall, how would you rate your personal or your family's financial situation, in terms of being able to afford adequate food and housing, and to pay the bills you currently have? Would you say: Excellent, Very Good, Good, Fair, or Poor

3) Thinking about your mental health, which includes stress, depression and problems with emotions, would you say that, in general, your mental health is: Excellent, Very Good, Good, Fair, or Poor

Sampling Approach & Design

PRC designed the survey methodology to minimize sample bias and maximize representativeness by using best practice random-selection sampling techniques. They also used specific data analysis techniques, including poststratification, to further decrease sample bias and account for underrepresented groups or nonresponses in the population. Poststratification involves selecting demographic variables of interest within the population (here, gender, age, race, ethnicity, and poverty status) and then applying "weights" to the data to produce a sample which more closely matches the actual regional population for these characteristics. This technique preserves the integrity of each individual's responses while improving overall representativeness. In order to determine WNC regional estimates, county responses were weighted in proportion to the actual population distribution to appropriately represent Western North Carolina as a whole. Since the sample design and quality control procedures used in the data collection ensure that the sample is representative, the findings may be generalized to the region with a high degree of confidence.

Survey Administration

PRC piloted the survey through 30 interviews across the region and consulted with WNC Health Network staff to resolve substantive issues before full implementation. PRC used trained, live interviewers and an automated computer-aided telephone interviewing system to administer the survey region-wide. Survey interviews were conducted primarily during evening and weekend hours, with some daytime weekday attempts. Interviewers made up to five call attempts per telephone number. Interviews were conducted in either English or Spanish, as preferred by respondents. The final sample included 56 (56.4) percent cell phone-based survey respondents and 44 (43.6) percent landline-based survey respondents. Including cell phone numbers in the sampling algorithm allowed better representation of demographic segments that might otherwise be under sampled in a landline-only model. PRC worked with a third-party provider to identify and invite potential respondents for an online survey for a small proportion (3.5%) of the sample population. The online survey was identical to the telephone survey instrument and allowed better sampling of younger and more urban demographic segments.

PRC also created a link to an online version of the survey, and WNC Health Network and its local partners promoted this online survey link throughout the various communities in order to drive additional participation and bolster overall samples. This yielded an additional 1,717 surveys.

About the Jackson Sample

Size: The total regional sample size was 4,861 individuals age 18 and older, with 370 from our county. PRC conducted all analysis of the final, raw dataset.

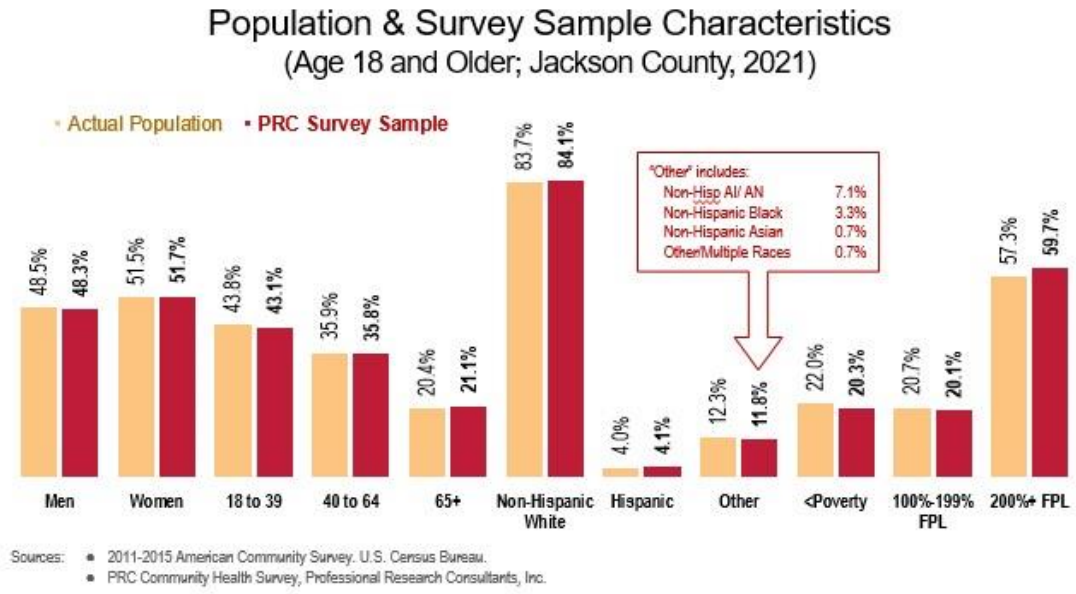
Sampling Error: For county-level findings, the maximum error rate at the 95% confidence level is approximately ±4.0% (Buncombe and Henderson counties), ±4.6% (Polk county), ±5.1% (Jackson and Madison counties), or ±6.9% (all other counties). Expected error ranges for a sample of 370 respondents at the 95% confidence level.

The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples:

- If 10% of a sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 6.0% and 14.0% (10% ± 4.0%) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 43.1% and 56.9% (50% ± 6.9%) of the total population would respond "yes" if asked this question.

Characteristics: The following chart outlines the characteristics of the survey sample for Jackson by key demographic variables, compared to actual population characteristics from census data. Note that the sample consists solely of area residents age 18 and older.



North Carolina Risk Factor Data
Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services.

Nationwide Risk Factor Data
Nationwide risk factor data, which are also provided in comparison charts where available, are taken from the 2020 PRC National Health Survey; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence.

Healthy People 2030
Since 1980, the Healthy People initiative has set goals and measurable objectives to improve health and well-being in the United States. The initiative's fifth edition, Healthy People 2030, builds on knowledge gained over the past 4 decades to address current and emerging public health priorities and challenges.

An interdisciplinary team of subject matter experts developed national health objectives and targets for the next 10 years. These objectives focus on the most high-impact public health issues, and reflect an increased focus on the social determinants of health — how the conditions where people live, work, and play affect their health and well-being.

Survey Limitations and Information Gaps
Limitations
The survey methodology included a combination of telephone (both landline and cell phone) interviews, as well as an online survey. Limitations exist for these methods. For example, potential respondents must have access to a landline or a cell phone to respond to the telephone survey. In addition, the telephone survey sample included landlines (versus cell phones), which may further skew responses to individuals or households with landlines.
The PRC online survey component also has inherent limitations in recruitment and administration. Respondents were recruited from a pre-identified panel of potential respondents. The panel may not be representative of the overall population. Additionally, PRC created an online survey link, which was promoted by WNC Health Network and its local partners through social media posting and other communications. The online survey link respondents might not be representative of the overall population. A general limitation of using online survey technology is that respondents must interpret survey questions themselves, rather than have them explained by a trained, live interviewer. This may change how they interpret and answer questions. Lastly, the technique used to apply post stratification weights helps preserve the integrity of each individual's responses while improving overall representativeness. However, this technique can also exaggerate an individual's responses when demographic variables are under-sampled.

Information Gaps

This assessment was designed to provide a comprehensive and broad picture of the health of the community overall. It does not measure all possible aspects of health in the community, nor does it represent all possible populations of interest. For example, due to low population numbers, members of certain racial/ethnic groups (e.g. Black, AI/AN, Hispanic/ Latinx, etc.) may not be identifiable or represented in numbers sufficient for independent analyses. In these cases, information gaps may limit the ability to assess the full array of the community's health needs.

Online Key Informant Survey (Primary Data)

Online Survey Methodology

Survey Purpose and Administration

The 2021 Online Key Informant Survey was conducted in June and July 2021. WNC Healthy Impact, with support from PRC, implemented an Online Key Informant Survey to solicit input from local leaders and stakeholders who have a broad interest in the health of the community. WNC Healthy Impact shared with PRC a list of recommended participants, including those from our county. This list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall. Key informants were contacted through an email that introduced the purpose of the survey and provided a link to take the survey online. Reminder emails were sent as needed to increase participation.

Survey instrument

The survey provided respondents the opportunity to identify important health issues in their community, what is supporting or getting in the way of health and wellbeing in their community, and who in their community is most impacted by these health issues.

Participation

In all, 15 community stakeholders took part in the Online Key Informant Survey for our county, as outlined below:

Local Online Key Informant Survey Participation		
Key Informant Type	**Number Invited**	**Number Participating**
Community Leader	22	8
Other Health Provider	2	2
Physician	4	0
Public Health Representative	4	4
Social Services Provider	6	1

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Survey Limitations

The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts. To collect this data, purposive sampling (a type of non-probability sampling which targets a specific group of people) was used. Unlike the random sampling technique employed in the telephone survey, the purpose is not to make generalizations or statistical inferences from the sample to the entire population, but to gather in-depth insights into health issues from a group of individuals with a specific perspective.

Local Survey Data or Listening Sessions

There were three local listening sessions conducted in Jackson County with small sample sizes. The first listening session was with local emergency services providers, the second was with local law enforcement which includes Sylva Police, Jackson County Sheriff's Office, and Western Carolina University, and then a third listening session was conducted with people who are in recovery for substance use. The data gathered during the three listening sessions may have inherent limitations, due to the sample size and geographic focus. We recognize these limitations and treat the listening sessions as more of a key stakeholder interview than qualitative data.

Data Definitions

Reports of this type customarily employ a range of technical terms, some of which may be unfamiliar to many readers. Health data, which composes a large proportion of the information included in this report, employs a series of very specific terms which are important to interpreting the significance of the data. While these technical health data terms are defined in the report at the appropriate time, there are some data caveats that should be applied from the onset.

Error

First, readers should note that there is some error associated with every health data source. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a small number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Age-adjusting

Secondly, since much of the information included in this report relies on mortality data, it is important to recognize that many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because an individual's risk of death inevitably increases with age. As a population ages, its collective risk of death increases; therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of "young" people, and other communities have a higher proportion of "old" people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by age-adjusting the data.

Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC SCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing most health data from one population or community to another and have been used in this report whenever available.

Rates

Thirdly, it is most useful to use rates of occurrence to compare data. A rate converts a raw count of events (deaths, births, disease or accident occurrences, etc.) in a target population to a ratio representing the number of same events in a standard population, which removes the variability associated with the size of the sample. Each rate has its own standard denominator that must be specified (e.g., 1,000 women, 100,000 persons, 10,000 people in a particular age group, etc.) for that rate. While rates help make data comparable, it should be noted that small numbers of events tend to yield rates that are highly unstable, since a small change in the raw count may translate to a large change in rate. To overcome rate instability, another convention typically used in the presentation of health statistics is data aggregation, which involves combining like data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data, especially for measures consisting of relatively few cases or events. The calculation is performed by dividing the sum number of cases or deaths in a population due to a particular cause over a period of years by the sum of the population size for each of the years in the same period. Health data for multiple years or multiple aggregate periods is included in this report wherever possible. Sometimes, however, even aggregating data is not sufficient, so the NC SCHS recommends that rates based on fewer than 20 events—whether covering an aggregate period or not—be considered unstable. In fact, in some of its data sets the NC SCHS no longer calculates rates based on fewer than 20 events. To be sure that unstable data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period, or 10 or more events in a single year. Where exceptions occur, the text will highlight the potential instability of the rate being discussed.

Regional arithmetic mean

Fourthly, sometimes in order to develop a representative regional composite figure from sixteen separate county measures the consultants calculated a regional arithmetic mean by summing the available individual county measures and dividing by the number of counties providing those measures. It must be noted that when regional arithmetic means are calculated from rates the mean is not the same as a true average rate but rather an approximation of it. This is because most rates used in this report are age adjusted, and the regional mean cannot be properly age-adjusted.

Describing difference and change

Fifthly, in describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which

appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a percent takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change. For example, there may be a rate of for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. But are these same simple numerical differences really of the same significance in both instances? In the first example, converting the 6-point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6-point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.).

Data limitations

Some data that is used in this report may have inherent limitations, due to the sample size, its geographic focus, or its being out-of-date, for example, but it is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.